

**High performance, solid carbide drill for small part machining**

# CoroDrill® Delta-C R840

Hole diameters 1,50 – 2,90 mm

**Applications:** Steel and cast materials, titanium alloys, cast iron, non ferrous materials and hard materials.



**CoroDrill® Delta-C — the first choice in modern high performance machines**

Self-centering drill  
Good surface quality  
Easy-to-regrind geometry  
Drill design according to DIN 6539/1897  
Manufacturing tolerance h7

**Long design:**  
Max hole depth:  
4 – 5 x diameter



**Cutting fluid supply**  
External cutting fluid supply.

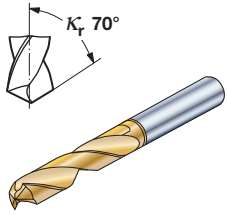
## **Product benefits**

Cutting material: micro-grain carbide for **high resistance to wear and extreme toughness.**  
TiN-coating for **universal applications.**  
Flute geometry for **efficient chip transportation.**  
Geometry for **high cutting performance.**

# CoroDrill® Delta-C R840 for small part machining

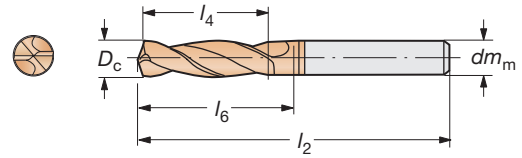
4 – 5 × D<sub>c</sub>

Cylindrical shank



**Drill diameter:** 1,50 – 2,90 mm  
**Max hole depth:** 4-5 × D<sub>c</sub>  
**Coating:** TiN  
**Hole tolerance:** IT8 –10  
**Surface finish:** R<sub>a</sub> 1–2 μm  
**Cutting fluid:** Emulsion or cutting oil  
**Drill standard:** DIN 1897 (dia. 1,50 – 1,80 mm)  
 DIN 6539 (dia. 1,90 – 2,90 mm)  
**Tolerances:** dm<sub>m</sub> = h6  
 D<sub>c</sub> = h7

External coolant supply



l<sub>4</sub> = recommended drilling depth

Drill diameter D <sub>c</sub> mm (Inch)	Ordering code External coolant supply	Coromant grades 1020 P K N S H	Dimensions, mm			
			dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
1,50	R840-0150-50-A0B	☆	1,50	32	7	9
1,588	0159-50-A0B	☆	1,588	34	8	10
1,60	0160-50-A0B	☆	1,60	34	8	10
1,70	0170-50-A0B	☆	1,70	34	8	10
1,80	0180-50-A0B	☆	1,80	36	9	11
1,90	0190-50-A0B	☆	1,90	36	9	11
1,984	0198-50-A0B	☆	1,984	38	9	12
2,00	0200-50-A0B	☆	2,00	38	9	12
2,10	0210-50-A0B	☆	2,10	38	9	12
2,20	0220-50-A0B	☆	2,20	40	10	13
2,30	R840-0230-50-A0B	☆	2,30	40	10	13
2,381	0238-50-A0B	☆	2,381	43	11	14
2,40	0240-50-A0B	☆	2,40	43	11	14
2,50	0250-50-A0B	☆	2,50	43	11	14
2,60	0260-50-A0B	☆	2,60	43	11	14
2,70	0270-50-A0B	☆	2,70	46	12	16
2,778	0278-50-A0B	☆	2,778	46	12	16
2,80	0280-50-A0B	☆	2,80	46	12	16
2,90	0290-50-A0B	☆	2,90	46	12	16

☆ = New item

Ordering example: 10 pieces R840-0150-50-A0A 1020

## The total CoroDrill® Delta-C drill programme

Besides the introduction of the above drills for small part machining, productive CoroDrill Delta-C drills are available in larger diameter range up to 20 mm.

The new Rotating tools catalogue describes the full range and the last product introductions.

Example of new CoroDrill Delta-C drills introduced in that catalogue are:

- R840, diameter 3,0 – 4,9 mm, drill depth 3 × D<sub>c</sub> and 5 × D<sub>c</sub>, all with internal coolant supply.
- R840, diameter 5,0 – 14,0 mm, drill depth 7 × D<sub>c</sub>
- R850, diameter 5,0 – 14,0 mm, drill depth 7 × D<sub>c</sub>, for aluminium machining





# CoroDrill™ Delta-C R840

The solid carbide drill – a precision tool  
for high productivity hole making

Hole diameters 3,00 – 20,00 mm

**CoroDrill™ Delta-C — the first choice in modern  
high performance machines**

Self-centering drill  
No need for pre-drilling  
Good surface finish  
Easy-to-regrind geometry  
Drill design according to DIN 6537  
Tolerance m7 to suit tapping operations

**Short design:**

Max hole depth: 2 – 3 x diameter

**Long design:**

Max hole depth: 4 – 5 x diameter

**Extra long design:**

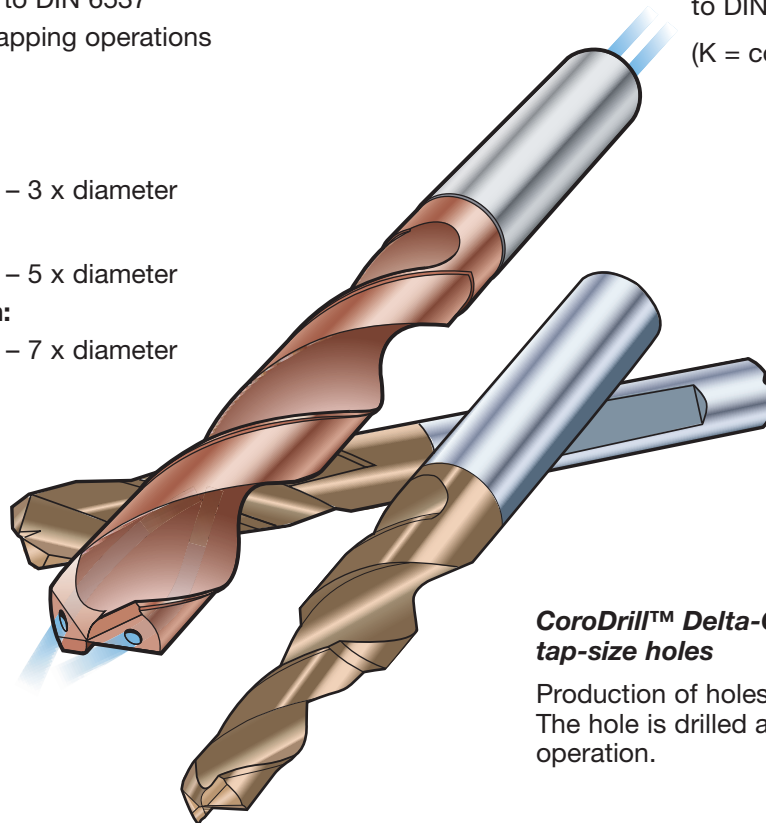
Max hole depth: 6 – 7 x diameter

**Good clamping features**

Cylindrical shank according to  
DIN 6535 HA (K) – First choice.

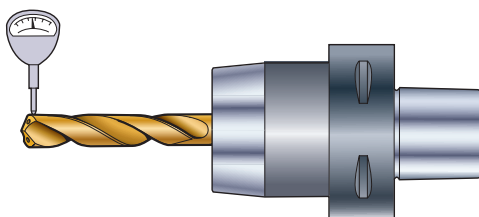
Whistle Notch shank according  
to DIN 6535 HE (K)

(K = coolant holes)



**CoroDrill™ Delta-C chamfer drill for  
tap-size holes**

Production of holes for threading (M4 – M16).  
The hole is drilled and chamfered in one  
operation.



**CoroGrip® power chuck**

For precision and small run out

*Tailor Made*

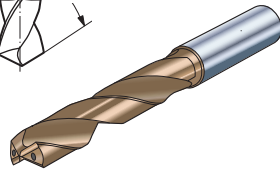
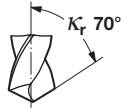
**Even more possibilities thanks to tailored design!**

If you do not find what you need in our comprehensive  
standard programme, choose the tool shape you require  
and we will tailor it for you to your dimensions.



**2 – 3 × D<sub>c</sub>**

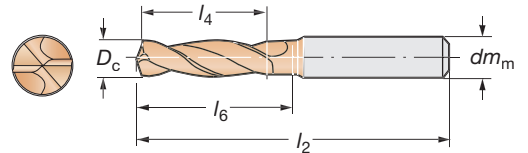
**Cylindrical shank**



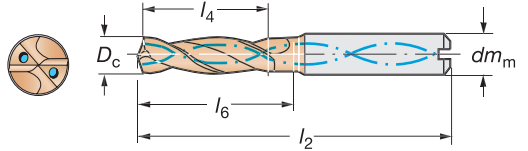
**Drill diameter:** 3,00-20,00 mm  
**Max hole depth:** 2-3 × D<sub>c</sub>  
**Coating:** TiN/ TiAlN multilayer  
**Hole tolerance:** IT8-9  
**Surface finish:** R<sub>a</sub> 1-2 μm  
**Cutting fluid:** Emulsion or cutting oil

**Drill standard:** DIN 6537  
**Tolerances:**  
 dm<sub>m</sub> = h6  
 D<sub>c</sub> = m7:  
 D<sub>c</sub> ≤ 3 +0,012/+0,002  
 D<sub>c</sub> 3 ≤ 6 +0,016/+0,004  
 D<sub>c</sub> 6 ≤ 10 +0,021/+0,006

External coolant supply



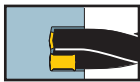
Internal coolant supply



l<sub>4</sub> = recommended drilling depth

Drill diameter D <sub>c</sub> mm	Fraction/ Thread size	Ordering code	Coromant grades	Ordering code	Coromant grades	Dimensions, mm			
						dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
3,00		R840- 0300-30-A0A	☆	R840- 0300-30-A1A	☆ *	6,0	62	13	20
3,10		0310-30-A0A	☆	0310-30-A1A	☆ *	6,0	62	13	20
3,17	1/8	-		0317-30-A1A	☆ *	6,0	62	13	20
3,20		0320-30-A0A	☆	0320-30-A1A	☆ *	6,0	62	13	20
3,30		0330-30-A0A	☆	0330-30-A1A	☆ *	6,0	62	13	20
3,40		0340-30-A0A	☆	0340-30-A1A	☆ *	6,0	62	13	20
3,45	8-32 UNC	-		0345-30-A1A	☆ *	6,0	62	14	20
3,50		0350-30-A0A	☆	0350-30-A1A	☆ *	6,0	62	14	20
3,55	8-36 UNF	-		0355-30-A1A	☆ *	6,0	62	14	20
3,57	9/64	-		0357-30-A1A	☆ *	6,0	62	14	20
3,60		R840- 0360-30-A0A	☆	R840- 0360-30-A1A	☆ *	6,0	62	14	20
3,70		0370-30-A0A	☆	0370-30-A1A	☆ *	6,0	62	14	20
3,80		0380-30-A0A	☆	0380-30-A1A	☆ *	6,0	62	14	20
3,90	10-24 UNC	0390-30-A0A	☆	0390-30-A1A	☆ *	6,0	62	14	20
3,97	5/32	-		0397-30-A1A	☆ *	6,0	66	17	24
4,00		0400-30-A0A	☆	0400-30-A1A	☆ *	6,0	66	17	24
4,10	10-32 UNF	0410-30-A0A	☆	0410-30-A1A	☆ *	6,0	66	17	24
4,20		0420-30-A0A	☆	0420-30-A1A	☆ *	6,0	66	17	24
4,30	M5	0430-30-A0A	☆	0430-30-A1A	☆ *	6,0	66	17	24
4,36	11/64	-		0436-30-A1A	☆ *	6,0	66	17	24
4,40		R840- 0440-30-A0A	☆	R840- 0440-30-A1A	☆ *	6,0	66	17	24
4,50		0450-30-A0A	☆	0450-30-A1A	☆ *	6,0	66	17	24
4,55	12-24 UNC	-		0455-30-A1A	☆ *	6,0	66	17	24
4,60		0460-30-A0A	☆	0460-30-A1A	☆ *	6,0	66	17	24
4,70		0470-30-A0A	☆	0470-30-A1A	☆ *	6,0	66	17	24
4,76	3/16	-		0476-30-A1A	☆ *	6,0	66	18	24
4,80	12-32 UNF	0480-30-A0A	☆	0480-30-A1A	☆ *	6,0	66	18	28
4,90		0490-30-A0A	☆	0490-30-A1A	☆ *	6,0	66	18	28
5,00		0500-30-A0A	☆	0500-30-A1A	☆	6,0	66	18	28
5,10		0510-30-A0A	☆	0510-30-A1A	☆	6,0	66	18	28
5,16	13/64	-		R840- 0516-30-A1A	☆	6,0	66	18	28
5,20		R840- 0520-30-A0A	☆	0520-30-A1A	☆	6,0	66	18	28
5,30		0530-30-A0A	☆	0530-30-A1A	☆	6,0	66	18	28
5,40		0540-30-A0A	☆	0540-30-A1A	☆	6,0	66	18	28
5,50		0550-30-A0A	☆	0550-30-A1A	☆	6,0	66	19	28
5,56	7/32	-		0556-30-A1A	☆	6,0	66	19	28
5,60		0560-30-A0A	☆	0560-30-A1A	☆	6,0	66	19	28
5,70		0570-30-A0A	☆	0570-30-A1A	☆	6,0	66	19	28
5,80		0580-30-A0A	☆	0580-30-A1A	☆	6,0	66	19	28
5,90		0590-30-A0A	☆	0590-30-A1A	☆	6,0	66	19	28
5,95	15/64	-		R840- 0595-30-A1A	☆	6,0	66	19	28
6,00		R840- 0600-30-A0A	☆	0600-30-A1A	☆	6,0	66	19	28
6,10		0610-30-A0A	☆	0610-30-A1A	☆	8,0	79	22	34
6,20		0620-30-A0A	☆	0620-30-A1A	☆	8,0	79	22	34
6,30		0630-30-A0A	☆	0630-30-A1A	☆	8,0	79	22	34
6,35	1/4	-		0635-30-A1A	☆	8,0	79	22	34
6,40		0640-30-A0A	☆	0640-30-A1A	☆	8,0	79	22	34
6,50		0650-30-A0A	☆	0650-30-A1A	☆	8,0	79	22	34
6,60		0660-30-A0A	☆	0660-30-A1A	☆	8,0	79	22	34
6,70		0670-30-A0A	☆	0670-30-A1A	☆	8,0	79	22	34
6,75	17/64	-		R840- 0675-30-A1A	☆	8,0	79	22	34
6,80		R840- 0680-30-A0A	☆	0680-30-A1A	☆	8,0	79	22	34
6,90		0690-30-A0A	☆	0690-30-A1A	☆	8,0	79	22	34
7,00		0700-30-A0A	☆	0700-30-A1A	☆	8,0	79	22	34
7,10		0710-30-A0A	☆	0710-30-A1A	☆	8,0	79	28	41

Ordering example: 10 pieces R840-0300-30-A0A 1220

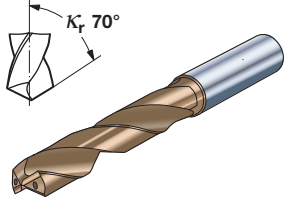


# DRILLING

## CoroDrill™ Delta-C high precision carbide drill

**2 – 3 × D<sub>c</sub>**

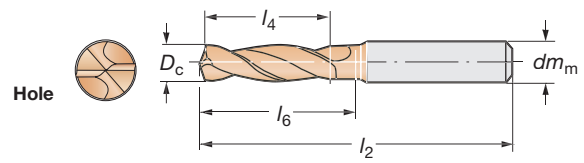
**Cylindrical shank**



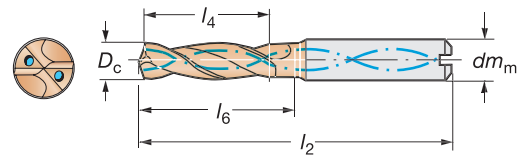
**Drill diameter:** 3,00—20,00 mm  
**Max hole depth:** 2—3 × D<sub>c</sub>  
**Coating:** TiN/ TiAlN multilayer  
**tolerance:** IT8-9  
**Surface finish:** R<sub>a</sub> 1-2 μm  
**Cutting fluid:** Emulsion or cutting oil

**Drill standard:** DIN 6537  
**Tolerances:** dm<sub>m</sub> = h6  
 D<sub>c</sub> = m7:  
 D<sub>c</sub> 6≤10 +0,021/+0,006  
 D<sub>c</sub> 10≤18 +0,025/+0,007

*External coolant supply*



*Internal coolant supply*

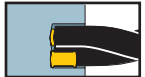


*l<sub>4</sub> = recommended drilling depth*

Drill diameter D <sub>c</sub> mm	Fraction/ Thread size	Ordering code External coolant supply	Coromant grades 1220	Ordering code Internal coolant supply	Coromant grades 1220	Dimensions, mm			
						dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
7,14	9/32	-		R840- 0714-30-A1A	☆	8,0	79	28	41
7,20		R840- 0720-30-A0A	☆	0720-30-A1A	☆	8,0	79	28	41
7,30		0730-30-A0A	☆	0730-30-A1A	☆	8,0	79	28	41
7,40		0740-30-A0A	☆	0740-30-A1A	☆	8,0	79	28	41
7,50		0750-30-A0A	☆	0750-30-A1A	☆	8,0	79	28	41
7,54	19/64	-		R840- 0754-30-A1A	☆	8,0	79	28	41
7,60		R840- 0760-30-A0A	☆	0760-30-A1A	☆	8,0	79	28	41
7,70		0770-30-A0A	☆	0770-30-A1A	☆	8,0	79	28	41
7,80		0780-30-A0A	☆	0780-30-A1A	☆	8,0	79	28	41
7,90		0790-30-A0A	☆	0790-30-A1A	☆	8,0	79	28	41
7,94	5/16	-		0794-30-A1A	☆	8,0	79	28	41
8,00		0800-30-A0A	☆	0800-30-A1A	☆	8,0	79	28	41
8,10		0810-30-A0A	☆	0810-30-A1A	☆	10,0	89	30	47
8,20		0820-30-A0A	☆	0820-30-A1A	☆	10,0	89	30	47
8,30		0830-30-A0A	☆	0830-30-A1A	☆	10,0	89	30	47
8,33	21/64	-		R840- 0833-30-A1A	☆	10,0	89	30	47
8,40		R840- 0840-30-A0A	☆	0840-30-A1A	☆	10,0	89	30	47
8,50		0850-30-A0A	☆	0850-30-A1A	☆	10,0	89	30	47
8,60		0860-30-A0A	☆	0860-30-A1A	☆	10,0	89	30	47
8,70		0870-30-A0A	☆	0870-30-A1A	☆	10,0	89	30	47
8,73	11/32	-		0873-30-A1A	☆	10,0	89	30	47
8,80		0880-30-A0A	☆	0880-30-A1A	☆	10,0	89	30	47
8,90		0890-30-A0A	☆	0890-30-A1A	☆	10,0	89	30	47
9,00		0900-30-A0A	☆	0900-30-A1A	☆	10,0	89	31	47
9,10		0910-30-A0A	☆	0910-30-A1A	☆	10,0	89	31	47
9,13	23/64	-		R840- 0913-30-A1A	☆	10,0	89	31	47
9,20		R840- 0920-30-A0A	☆	0920-30-A1A	☆	10,0	89	31	47
9,30		0930-30-A0A	☆	0930-30-A1A	☆	10,0	89	31	47
9,40		0940-30-A0A	☆	0940-30-A1A	☆	10,0	89	31	47
9,50		0950-30-A0A	☆	0950-30-A1A	☆	10,0	89	31	47
9,52	3/8	-		0952-30-A1A	☆	10,0	89	31	47
9,60		0960-30-A0A	☆	0960-30-A1A	☆	10,0	89	31	47
9,70		0970-30-A0A	☆	0970-30-A1A	☆	10,0	89	31	47
9,80		0980-30-A0A	☆	0980-30-A1A	☆	10,0	89	31	47
9,90		0990-30-A0A	☆	0990-30-A1A	☆	10,0	89	31	47
9,92	25/64	-		R840- 0992-30-A1A	☆	10,0	89	31	47
10,00		R840- 1000-30-A0A	☆	1000-30-A1A	☆	10,0	89	31	47
10,10		1010-30-A0A	☆	1010-30-A1A	☆	12,0	102	34	55
10,20		1020-30-A0A	☆	1020-30-A1A	☆	12,0	102	34	55
10,30		1030-30-A0A	☆	1030-30-A1A	☆	12,0	102	34	55
10,32	13/32	-		1032-30-A1A	☆	12,0	102	34	55
10,40		1040-30-A0A	☆	1040-30-A1A	☆	12,0	102	34	55
10,50		1050-30-A0A	☆	1050-30-A1A	☆	12,0	102	34	55
10,60		1060-30-A0A	☆	1060-30-A1A	☆	12,0	102	34	55
10,70		1070-30-A0A	☆	1070-30-A1A	☆	12,0	102	34	55
10,71	27/64	-		R840- 1071-30-A1A	☆	12,0	102	34	55
10,80		R840- 1080-30-A0A	☆	1080-30-A1A	☆	12,0	102	34	55
10,90		1090-30-A0A	☆	1090-30-A1A	☆	12,0	102	34	55
11,00		1100-30-A0A	☆	1100-30-A1A	☆	12,0	102	35	55
11,10		1110-30-A0A	☆	1110-30-A1A	☆	12,0	102	35	55
11,11	7/16	-		1111-30-A1A	☆	12,0	102	35	55
11,20		1120-30-A0A	☆	1120-30-A1A	☆	12,0	102	35	55
11,30		1130-30-A0A	☆	1130-30-A1A	☆	12,0	102	35	55
11,40		1140-30-A0A	☆	1140-30-A1A	☆	12,0	102	35	55
11,50		1150-30-A0A	☆	1150-30-A1A	☆	12,0	102	35	55

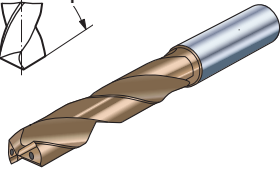
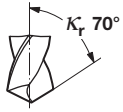
Ordering example: 10 pieces R840-0720-30-A0A 1220





**2 – 3 × D<sub>c</sub>**

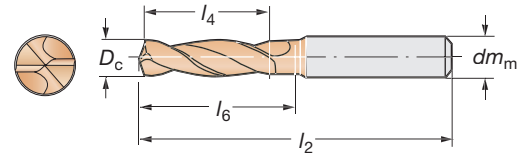
**Cylindrical shank**



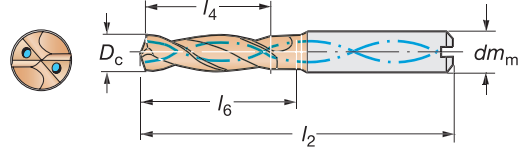
**Drill diameter:** 3,00-20,00 mm  
**Max hole depth:** 2-3 x D<sub>c</sub>  
**Coating:** TiN/ TiAlN multilayer  
**Hole tolerance:** IT8-9  
**Surface finish:** R<sub>a</sub> 1-2 μm  
**Cutting fluid:** Emulsion or cutting oil

**Drill standard:** DIN 6537  
**Tolerances:** dm<sub>m</sub> = h6  
 D<sub>c</sub> = m7:  
 D<sub>c</sub> 10≤18 +0,025/+0,007  
 D<sub>c</sub> 18≤20 +0,029/+0,008

External coolant supply



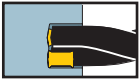
Internal coolant supply



l<sub>4</sub> = recommended drilling depth

D <sub>c</sub> mm	Fraction/ Thread/ size	Ordering code	Coromant grades	Ordering code	Coromant grades	Dimensions, mm			
		External coolant supply	1220 P M K N S H	Internal coolant supply	1220 P M K N S H	dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
11,51	29/64	-	☆	R840- 1151-30-A1A	☆	12,0	102	35	55
11,60		R840- 1160-30-A0A	☆	1160-30-A1A	☆	12,0	102	35	55
11,70		1170-30-A0A	☆	1170-30-A1A	☆	12,0	102	35	55
11,80		1180-30-A0A	☆	1180-30-A1A	☆	12,0	102	35	55
11,90	15/32	R840- 1190-30-A0A	☆	1190-30-A1A	☆	12,0	102	35	55
12,00		1200-30-A0A	☆	1200-30-A1A	☆	12,0	102	35	55
12,10		1210-30-A0A	☆	1210-30-A1A	☆	14,0	107	38	60
12,20		1220-30-A0A	☆	1220-30-A1A	☆	14,0	107	38	60
12,30	31/64	R840- 1230-30-A0A	☆	1230-30-A1A	☆	14,0	107	38	60
12,40		1240-30-A0A	☆	1240-30-A1A	☆	14,0	107	38	60
12,50		R840- 1250-30-A0A	☆	1250-30-A1A	☆	14,0	107	38	60
12,60		1260-30-A0A	☆	R840- 1260-30-A1A	☆	14,0	107	38	60
12,70	1/2	1270-30-A0A	☆	1270-30-A1A	☆	14,0	107	38	60
12,80		1280-30-A0A	☆	1280-30-A1A	☆	14,0	107	38	60
13,00		1300-30-A0A	☆	1300-30-A1A	☆	14,0	107	39	60
13,10	33/64	-	☆	1310-30-A1A	☆	14,0	107	39	60
13,25		1325-30-A0A	☆	1325-30-A1A	☆	14,0	107	39	60
13,50	17/32	R840- 1350-30-A0A	☆	1350-30-A1A	☆	14,0	107	39	60
13,75		1375-30-A0A	☆	1375-30-A1A	☆	14,0	107	39	60
13,80		1380-30-A0A	☆	1380-30-A1A	☆	14,0	107	39	60
13,89	35/64	-	☆	R840- 1389-30-A1A	☆	14,0	107	39	60
14,00		R840- 1400-30-A0A	☆	1400-30-A1A	☆	14,0	107	39	60
14,25		1425-30-A0A	☆	1425-30-A1A	☆	16,0	115	41	65
14,29	9/16	-	☆	1429-30-A1A	☆	16,0	115	41	65
14,50		1450-30-A0A	☆	1450-30-A1A	☆	16,0	115	41	65
14,69	37/64	-	☆	1469-30-A1A	☆	16,0	115	41	65
14,75		1475-30-A0A	☆	1475-30-A1A	☆	16,0	115	41	65
14,80		1480-30-A0A	☆	1480-30-A1A	☆	16,0	115	41	65
15,00		1500-30-A0A	☆	1500-30-A1A	☆	16,0	115	42	65
15,50		1550-30-A0A	☆	1550-30-A1A	☆	16,0	115	42	65
15,80		R840- 1580-30-A0A	☆	R840- 1580-30-A1A	☆	16,0	115	42	65
15,87	5/8	-	☆	1587-30-A1A	☆	16,0	115	42	65
16,00		1600-30-A0A	☆	1600-30-A1A	☆	16,0	115	42	65
16,08	Tube sheet	-	☆	1608-30-A1A	☆	18,0	123	46	73
16,10	Tube sheet	-	☆	1610-30-A1A	☆	18,0	123	46	73
16,50		1650-30-A0A	☆	1650-30-A1A	☆	18,0	123	46	73
16,80		1680-30-A0A	☆	1680-30-A1A	☆	18,0	123	46	73
17,00		1700-30-A0A	☆	1700-30-A1A	☆	18,0	123	47	73
17,46	11/16	-	☆	1746-30-A1A	☆	18,0	123	47	73
17,50		1750-30-A0A	☆	1750-30-A1A	☆	18,0	123	47	73
17,80		R840 1780-30-A0A	☆	R840- 1780-30-A1A	☆	18,0	123	47	73
18,00		1800-30-A0A	☆	1800-30-A1A	☆	18,0	123	47	73
18,50		1850-30-A0A	☆	1850-30-A1A	☆	20,0	131	49	79
18,80		1880-30-A0A	☆	1880-30-A1A	☆	20,0	131	49	79
19,00		1900-30-A0A	☆	1900-30-A1A	☆	20,0	131	50	79
19,05	3/4	-	☆	1905-30-A1A	☆	20,0	131	50	79
19,25	Tube sheet	-	☆	1925-30-A1A	☆	20,0	131	50	79
19,30	Tube sheet	-	☆	1930-30-A1A	☆	20,0	131	50	79
19,50		1950-30-A0A	☆	1950-30-A1A	☆	20,0	131	50	79
19,80		1980-30-A0A	☆	1980-30-A1A	☆	20,0	131	50	79
20,00		2000-30-A0A	☆	2000-30-A1A	☆	20,0	131	50	79

Ordering example: 10 pieces R840-1160-30-A0A 1220

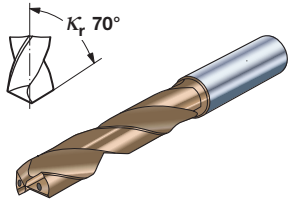


# DRILLING

## CoroDrill™ Delta-C high precision carbide drill

**4 - 5 × D<sub>c</sub>**

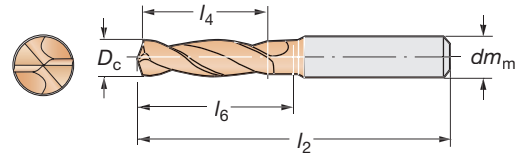
**Cylindrical shank**



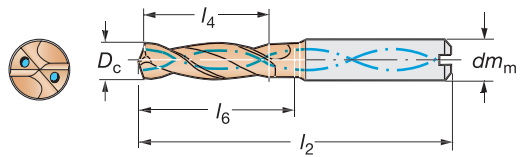
**Drill diameter:** 3,00-20,00 mm  
**Max hole depth:** 4-5 × D<sub>c</sub>  
**Coating:** TiN/ TiAlN multilayer  
**Hole tolerance:** IT8-9-10  
**Surface finish:** R<sub>a</sub> 1-2 μm  
**Cutting fluid:** Emulsion or cutting oil

**Drill standard:** DIN 6537  
**Tolerances:**  
 dm<sub>m</sub> = h6  
 D<sub>c</sub> = m7:  
 D<sub>c</sub> ≤ 3 +0,012/+0,002  
 D<sub>c</sub> 3 ≤ 6 +0,016/+0,004  
 D<sub>c</sub> 6 ≤ 10 +0,021/+0,006

*External coolant supply*



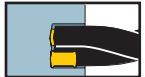
*Internal coolant supply*



*l<sub>4</sub> = recommended drilling depth*

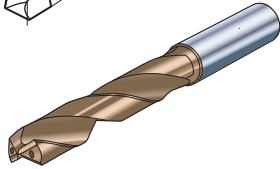
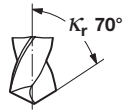
Drill diameter D <sub>c</sub> mm	Fraction/ Thread size	Ordering code External coolant supply	Coromant grades 1220 P M K N S H	Ordering code Internal coolant supply	Coromant grades 1220 P M K N S H	Dimensions, mm			
						dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
3,00		R840- 0300-50-A0A	☆	R840- 0300-50-A1A	☆☆	6,0	66	20	28
3,10		0310-50-A0A	☆	0310-50-A1A	☆☆	6,0	66	20	28
3,17	1/8	-		0317-50-A1A	☆☆	6,0	66	20	28
3,20		0320-50-A0A	☆	0320-50-A1A	☆☆	6,0	66	20	28
3,30		0330-50-A0A	☆	0330-50-A1A	☆☆	6,0	66	20	28
3,38	M4	0338-50-A0A	☆	-		6,0	66	20	28
3,40		0340-50-A0A	☆	0340-50-A1A	☆☆	6,0	66	20	28
3,45	8-32 UNC	0345-50-A0A	☆	0345-50-A1A	☆☆	6,0	66	20	28
3,50		0350-50-A0A	☆	0350-50-A1A	☆☆	6,0	66	20	28
3,55	8-36 UNF	0355-50-A0A	☆	0355-50-A1A	☆☆	6,0	66	20	28
3,57	9/64	-		R840- 0357-50-A1A	☆☆	6,0	66	20	28
3,60		R840- 0360-50-A0A	☆	0360-50-A1A	☆☆	6,0	66	20	28
3,70		0370-50-A0A	☆	0370-50-A1A	☆☆	6,0	66	20	28
3,80		0380-50-A0A	☆	0380-50-A1A	☆☆	6,0	66	20	28
3,90	10-24 UNC	0390-50-A0A	☆	0390-50-A1A	☆☆	6,0	66	20	28
3,97	5/32	-		0397-50-A1A	☆☆	6,0	74	27	36
4,00		0400-50-A0A	☆	0400-50-A1A	☆☆	6,0	74	27	36
4,10	10-32 UNF	0410-50-A0A	☆	0410-50-A1A	☆☆	6,0	74	27	36
4,20		0420-50-A0A	☆	0420-50-A1A	☆☆	6,0	74	27	36
4,30	M5	0430-50-A0A	☆	0430-50-A1A	☆☆	6,0	74	27	36
4,36	11/64	-		R840- 0436-50-A1A	☆☆	6,0	74	27	36
4,40		R840- 0440-50-A0A	☆	0440-50-A1A	☆☆	6,0	74	27	36
4,50		0450-50-A0A	☆	0450-50-A1A	☆☆	6,0	74	27	36
4,55	12-24 UNC	0455-50-A0A	☆	0455-50-A1A	☆☆	6,0	74	27	36
4,60		0460-50-A0A	☆	0460-50-A1A	☆☆	6,0	74	27	36
4,70		0470-50-A0A	☆	0470-50-A1A	☆☆	6,0	74	27	36
4,76	3/16	-		0476-50-A1A	☆☆	6,0	74	27	36
4,80	12-32 UNF	0480-50-A0A	☆	0480-50-A1A	☆☆	6,0	74	27	36
4,90		0490-50-A0A	☆	0490-50-A1A	☆☆	6,0	82	34	44
5,00		0500-50-A0A	☆	0500-50-A1A	☆☆	6,0	82	35	44
5,10	M6	R840- 0510-50-A0A	☆	R840- 0510-50-A1A	☆☆	6,0	82	35	44
5,16	13/64	-		0516-50-A1A	☆☆	6,0	82	35	44
5,20		0520-50-A0A	☆	0520-50-A1A	☆☆	6,0	82	35	44
5,25	1/4-20 UNC	-		0525-50-A1A	☆☆	6,0	82	35	44
5,30		0530-50-A0A	☆	0530-50-A1A	☆☆	6,0	82	35	44
5,40		0540-50-A0A	☆	0540-50-A1A	☆☆	6,0	82	35	44
5,50		0550-50-A0A	☆	0550-50-A1A	☆☆	6,0	82	35	44
5,55	1/4-28 UNF	-		0555-50-A1A	☆☆	6,0	82	35	44
5,56	7/32	-		0556-50-A1A	☆☆	6,0	82	35	44
5,60		0560-50-A0A	☆	0560-50-A1A	☆☆	6,0	82	35	44
5,70		R840- 0570-50-A0A	☆	R840- 0570-50-A1A	☆☆	6,0	82	35	44
5,80		0580-50-A0A	☆	0580-50-A1A	☆☆	6,0	82	35	44
5,90		0590-50-A0A	☆	0590-50-A1A	☆☆	6,0	82	35	44
5,95	15/64	-		0595-50-A1A	☆☆	6,0	82	35	44
6,00		0600-50-A0A	☆	0600-50-A1A	☆☆	6,0	82	35	44
6,10		0610-50-A0A	☆	0610-50-A1A	☆☆	8,0	91	39	53
6,20		0620-50-A0A	☆	0620-50-A1A	☆☆	8,0	91	39	53
6,30		0630-50-A0A	☆	0630-50-A1A	☆☆	8,0	91	39	53
6,35	1/4	-		0635-50-A1A	☆☆	8,0	91	39	53
6,40		0640-50-A0A	☆	0640-50-A1A	☆☆	8,0	91	39	53
6,50		R840- 0650-50-A0A	☆	R840- 0650-50-A1A	☆☆	8,0	91	39	53
6,60		0660-50-A0A	☆	0660-50-A1A	☆☆	8,0	91	39	53
6,70	5/18-18 UNF	0670-50-A0A	☆	0670-50-A1A	☆☆	8,0	91	39	53
6,75	17/64	-		0675-50-A1A	☆☆	8,0	91	39	53
6,80		0680-50-A0A	☆	0680-50-A1A	☆☆	8,0	91	39	53

Ordering example: 10 pieces R840-0300-50-A0A 1220



4 – 5 × D<sub>c</sub>

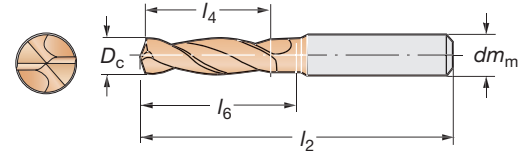
Cylindrical shank



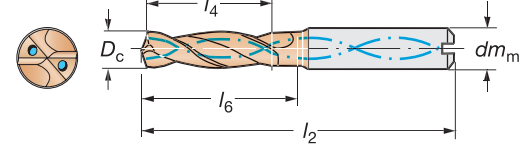
**Drill diameter:** 3,00-20,00 mm  
**Max hole depth:** 4-5 x D<sub>c</sub>  
**Coating:** TiN/ TiAlN multilayer  
**Hole tolerance:** IT8-9-10  
**Surface finish:** R<sub>a</sub> 1-2 μm  
**Cutting fluid:** Emulsion or cutting oil

**Drill standard:** DIN 6537  
**Tolerances:** dm<sub>m</sub> = h6  
 D<sub>c</sub> = m7:  
 D<sub>c</sub> 6≤10 +0,021/+0,006  
 D<sub>c</sub> 10≤18 +0,025/+0,007

External coolant supply



Internal coolant supply

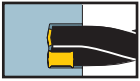


l<sub>4</sub> = recommended drilling depth

Drill diameter D <sub>c</sub> mm	Fraction/ Thread size	Ordering code External coolant supply	Coromant grades T220	Ordering code Internal coolant supply	Coromant grades T220	Dimensions, mm			
						dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
6,90	M8	R840- 0690-50-A0A	☆	R840- 0690-50-A1A	☆	8,0	91	39	53
7,00	5/18-24 UNF	0700-50-A0A	☆	0700-50-A1A	☆	8,0	91	40	53
7,10	MF8 x 1	0710-50-A0A	☆	0710-50-A1A	☆	8,0	91	40	53
7,14	9/32	-	☆	0714-50-A1A	☆	8,0	91	40	53
7,20		0720-50-A0A	☆	0720-50-A1A	☆	8,0	91	40	53
7,30		0730-50-A0A	☆	0730-50-A1A	☆	8,0	91	40	53
7,40		0740-50-A0A	☆	0740-50-A1A	☆	8,0	91	40	53
7,50		0750-50-A0A	☆	0750-50-A1A	☆	8,0	91	40	53
7,54	19/64	-	☆	0754-50-A1A	☆	8,0	91	40	53
7,60		0760-50-A0A	☆	0760-50-A1A	☆	8,0	91	40	53
7,70		R840- 0770-50-A0A	☆	R840- 0770-50-A1A	☆	8,0	91	40	53
7,80		0780-50-A0A	☆	0780-50-A1A	☆	8,0	91	40	53
7,90		0790-50-A0A	☆	0790-50-A1A	☆	8,0	91	40	53
7,94	5/16	-	☆	0794-50-A1A	☆	8,0	91	40	53
8,00		0800-50-A0A	☆	0800-50-A1A	☆	8,0	91	40	53
8,10		0810-50-A0A	☆	0810-50-A1A	☆	10,0	103	44	61
8,15	3/8-16 UNC	-	☆	0815-50-A1A	☆	10,0	103	44	61
8,20		0820-50-A0A	☆	0820-50-A1A	☆	10,0	103	44	61
8,30		0830-50-A0A	☆	0830-50-A1A	☆	10,0	103	44	61
8,33	21/64	-	☆	0833-50-A1A	☆	10,0	103	44	61
8,40		R840- 0840-50-A0A	☆	R840- 0840-50-A1A	☆	10,0	103	44	61
8,50		0850-50-A0A	☆	0850-50-A1A	☆	10,0	103	44	61
8,60	3/8-24 UNF	0860-50-A0A	☆	0860-50-A1A	☆	10,0	103	44	61
8,70	M10	0870-50-A0A	☆	0870-50-A1A	☆	10,0	103	44	61
8,73	11/32	-	☆	0873-50-A1A	☆	10,0	103	44	61
8,80		0880-50-A0A	☆	0880-50-A1A	☆	10,0	103	44	61
8,90	MF10 x 1.25	0890-50-A0A	☆	0890-50-A1A	☆	10,0	103	44	61
9,00		0900-50-A0A	☆	0900-50-A1A	☆	10,0	103	44	61
9,10		0910-50-A0A	☆	0910-50-A1A	☆	10,0	103	45	61
9,13	23/64	-	☆	0913-50-A1A	☆	10,0	103	45	61
9,20		R840- 0920-50-A0A	☆	R840- 0920-50-A1A	☆	10,0	103	45	61
9,30		0930-50-A0A	☆	0930-50-A1A	☆	10,0	103	45	61
9,40		0940-50-A0A	☆	0940-50-A1A	☆	10,0	103	45	61
9,50		0950-50-A0A	☆	0950-50-A1A	☆	10,0	103	45	61
9,52	3/8	-	☆	0952-50-A1A	☆	10,0	103	45	61
9,55	7/16-14 UNC	-	☆	0955-50-A1A	☆	10,0	103	45	61
9,60		0960-50-A0A	☆	0960-50-A1A	☆	10,0	103	45	61
9,70		0970-50-A0A	☆	0970-50-A1A	☆	10,0	103	45	61
9,80		0980-50-A0A	☆	0980-50-A1A	☆	10,0	103	45	61
9,90		0990-50-A0A	☆	0990-50-A1A	☆	10,0	103	45	61
9,92	25/64	-	☆	R840- 0992-50-A1A	☆	10,0	103	45	61
10,00	7/16-20 UNF	R840- 1000-50-A0A	☆	1000-50-A1A	☆	10,0	103	45	61
10,10		1010-50-A0A	☆	1010-50-A1A	☆	12,0	118	50	71
10,20		1020-50-A0A	☆	1020-50-A1A	☆	12,0	118	50	71
10,30		1030-50-A0A	☆	1030-50-A1A	☆	12,0	118	50	71
10,32	13/32	-	☆	1032-50-A1A	☆	12,0	118	50	71
10,40		1040-50-A0A	☆	1040-50-A1A	☆	12,0	118	50	71
10,45	M12	-	☆	1045-50-A1A	☆	12,0	118	50	71
10,50		1050-50-A0A	☆	1050-50-A1A	☆	12,0	118	50	71
10,60		1060-50-A0A	☆	1060-50-A1A	☆	12,0	118	50	71
10,70	MF12 x 1.5	R840- 1070-50-A0A	☆	R840- 1070-50-A1A	☆	12,0	118	50	71
10,71	27/64	-	☆	1071-50-A1A	☆	12,0	118	50	71
10,80		1080-50-A0A	☆	1080-50-A1A	☆	12,0	118	50	71
10,90		1090-50-A0A	☆	1090-50-A1A	☆	12,0	118	50	71
11,00	1/2-13 UNC	1100-50-A0A	☆	1100-50-A1A	☆	12,0	118	51	71

Ordering example: 10 pieces R840-0690-50-A0A 1220



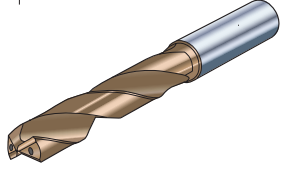
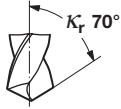


# DRILLING

## CoroDrill™ Delta-C high precision carbide drill

**4 - 5 × D<sub>c</sub>**

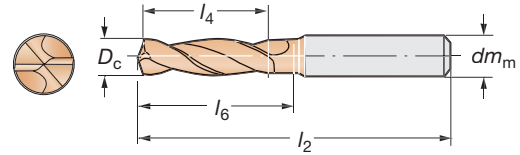
**Cylindrical shank**



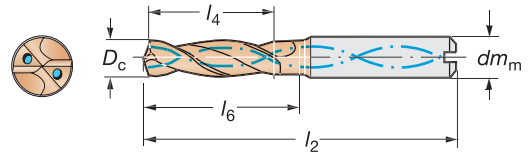
**Drill diameter:** 3,00-20,00 mm  
**Max hole depth:** 4-5 × D<sub>c</sub>  
**Coating:** TiN/ TiAlN multilayer  
**Hole tolerance:** IT8-9-10  
**Surface finish:** R<sub>a</sub> 1-2 μm  
**Cutting fluid:** Emulsion or cutting oil

**Drill standard:** DIN 6537  
**Tolerances:** dm<sub>m</sub> = h6  
 D<sub>c</sub> = m7:  
 D<sub>c</sub> 10≤18 +0,025/+0,007  
 D<sub>c</sub> 18≤20 +0,029/+0,008

*External coolant supply*



*Internal coolant supply*



*l<sub>4</sub> = recommended drilling depth*

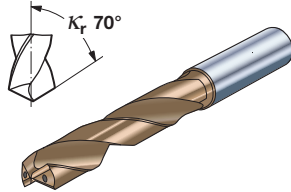
Drill diameter D <sub>c</sub> mm	Fraction/ Thread size	Ordering code External coolant supply	Coromant grades 1220 P M K N S H	Ordering code Internal coolant supply	Coromant grades 1220 P M K N S H	Dimensions, mm			
						dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
11,10	7/16	R840- 1110-50-A0A	☆	R840- 1110-50-A1A	☆	12,0	118	51	71
11,11		-	☆	R840- 1111-50-A1A	☆	12,0	118	51	71
11,20		1120-50-A0A	☆	R840- 1120-50-A1A	☆	12,0	118	51	71
11,30		1130-50-A0A	☆	R840- 1130-50-A1A	☆	12,0	118	51	71
11,40		1140-50-A0A	☆	R840- 1140-50-A1A	☆	12,0	118	51	71
11,50		1150-50-A0A	☆	R840- 1150-50-A1A	☆	12,0	118	51	71
11,51		29/64	-	R840- 1151-50-A1A	☆	12,0	118	51	71
11,60		1/2-20 UNF	1160-50-A0A	☆	R840- 1160-50-A1A	☆	12,0	118	51
11,70		1170-50-A0A	☆	R840- 1170-50-A1A	☆	12,0	118	51	71
11,80		1180-50-A0A	☆	R840- 1180-50-A1A	☆	12,0	118	51	71
11,90	15/32	R840- 1190-50-A0A	☆	R840- 1190-50-A1A	☆	12,0	118	51	71
12,00		1200-50-A0A	☆	R840- 1200-50-A1A	☆	12,0	118	51	71
12,10		1210-50-A0A	☆	R840- 1210-50-A1A	☆	14,0	124	55	77
12,20		1220-50-A0A	☆	R840- 1220-50-A1A	☆	14,0	124	55	77
12,30		1230-50-A0A	☆	R840- 1230-50-A1A	☆	14,0	124	55	77
12,40		1240-50-A0A	☆	R840- 1240-50-A1A	☆	14,0	124	55	77
12,50		1250-50-A0A	☆	R840- 1250-50-A1A	☆	14,0	124	55	77
12,60		1260-50-A0A	☆	R840- 1260-50-A1A	☆	14,0	124	55	77
12,70	1270-50-A0A	☆	R840- 1270-50-A1A	☆	14,0	124	55	77	
12,80	1280-50-A0A	☆	R840- 1280-50-A1A	☆	14,0	124	55	77	
13,00	33/64	R840- 1300-50-A0A	☆	R840- 1300-50-A1A	☆	14,0	124	56	77
13,10		-	☆	R840- 1310-50-A1A	☆	14,0	124	56	77
13,25		1325-50-A0A	☆	R840- 1325-50-A1A	☆	14,0	124	56	77
13,50		1350-50-A0A	☆	R840- 1350-50-A1A	☆	14,0	124	56	77
13,75		1375-50-A0A	☆	R840- 1375-50-A1A	☆	14,0	124	56	77
13,80		1380-50-A0A	☆	R840- 1380-50-A1A	☆	14,0	124	56	77
13,89		35/64	-	R840- 1389-50-A1A	☆	14,0	124	56	77
14,00		1400-50-A0A	☆	R840- 1400-50-A1A	☆	14,0	124	56	77
14,25	1425-50-A0A	☆	R840- 1425-50-A1A	☆	16,0	133	59	83	
14,29	9/16	-	R840- 1429-50-A1A	☆	16,0	133	59	83	
14,50	37/64	R840- 1450-50-A0A	☆	R840- 1450-50-A1A	☆	16,0	133	59	83
14,69		-	☆	R840- 1469-50-A1A	☆	16,0	133	59	83
14,75		1475-50-A0A	☆	R840- 1475-50-A1A	☆	16,0	133	59	83
14,80		1480-50-A0A	☆	R840- 1480-50-A1A	☆	16,0	133	59	83
15,00		1500-50-A0A	☆	R840- 1500-50-A1A	☆	16,0	133	60	83
15,50		1550-50-A0A	☆	R840- 1550-50-A1A	☆	16,0	133	60	83
15,80		1580-50-A0A	☆	R840- 1580-50-A1A	☆	16,0	133	60	83
15,87		5/8	-	R840- 1587-50-A1A	☆	16,0	133	60	83
16,00	1600-50-A0A	☆	R840- 1600-50-A1A	☆	16,0	133	60	83	
16,08	Tube sheet	-	R840- 1608-50-A1A	☆	18,0	133	66	93	
16,10	Tube sheet	-	R840- 1610-50-A1A	☆	18,0	143	66	93	
16,50	21/32	R840- 1650-50-A0A	☆	R840- 1650-50-A1A	☆	18,0	143	66	93
16,67		-	☆	R840- 1667-50-A1A	☆	18,0	143	66	93
16,80		1680-50-A0A	☆	R840- 1680-50-A1A	☆	18,0	143	66	93
17,00		1700-50-A0A	☆	R840- 1700-50-A1A	☆	18,0	143	67	93
17,46		11/16	-	R840- 1746-50-A1A	☆	18,0	143	67	93
17,50		1750-50-A0A	☆	R840- 1750-50-A1A	☆	18,0	143	67	93
17,80		1780-50-A0A	☆	R840- 1780-50-A1A	☆	18,0	143	67	93
18,00		1800-50-A0A	☆	R840- 1800-50-A1A	☆	18,0	143	67	93
18,50	1850-50-A0A	☆	R840- 1850-50-A1A	☆	20,0	153	71	101	
18,80	3/4	R840- 1880-50-A0A	☆	R840- 1880-50-A1A	☆	20,0	153	71	101
19,00		1900-50-A0A	☆	R840- 1900-50-A1A	☆	20,0	153	72	101
19,05		1905-50-A0A	☆	R840- 1905-50-A1A	☆	20,0	153	72	101
19,25		1925-50-A0A	☆	R840- 1925-50-A1A	☆	20,0	153	72	101
19,30		1930-50-A0A	☆	R840- 1930-50-A1A	☆	20,0	153	72	101
19,50		1950-50-A0A	☆	R840- 1950-50-A1A	☆	20,0	153	72	101
19,80		1980-50-A0A	☆	R840- 1980-50-A1A	☆	20,0	153	72	101
20,00		2000-50-A0A	☆	R840- 2000-50-A1A	☆	20,0	153	72	101

Ordering example: 10 pieces R840-1150-50-A0A 1220



6 – 7 × D<sub>c</sub>

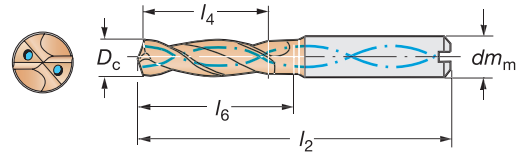
Cylindrical shank



Introduction during autumn 2003.

- Drill diameter: 5,00-14,00 mm
- Max hole depth: 6-7 x D<sub>c</sub>
- Coating: TiN/ TiAlN multilayer
- Hole tolerance: IT8-9-10
- Surface finish: R<sub>a</sub> 1-2 μm
- Cutting fluid: Emulsion or cutting oil
- Drill standard: DIN 6537
- Tolerances: dm<sub>m</sub> = h6  
D<sub>c</sub> = m7:  
D<sub>c</sub> 3≤6 +0,016/+0,004  
D<sub>c</sub> 6≤10 +0,021/+0,006

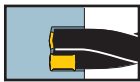
Internal coolant supply



l<sub>4</sub> = recommended drilling depth

Drill diameter D <sub>c</sub> mm	Fraction/ Thread size	Ordering code  Internal coolant supply	Coromant grades  1220 <b>P M K</b> <b>N S H</b>	Dimensions, mm			
				dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
5,00	13/64	R840- 0500-70-A1A	☆	6	93	42	50
5,10			☆	6	93	42	50
5,16			☆	6	93	42	50
5,20			☆	6	93	42	50
5,30			☆	6	93	42	50
5,40	7/32	R840- 0540-70-A1A	☆	6	93	42	50
5,50			☆	6	93	42	50
5,56			☆	6	93	42	50
5,60			☆	6	93	42	50
5,70			☆	6	93	42	50
5,80	15/64	R840- 0580-70-A1A	☆	6	93	42	50
5,90			☆	6	93	42	50
5,95			☆	6	93	42	50
6,00			☆	6	93	42	50
6,10			☆	6	93	42	50
6,20	1/4	R840- 0620-70-A1A	☆	8	117	49	58
6,30			☆	8	117	49	58
6,35			☆	8	117	49	58
6,40			☆	8	117	49	58
6,50			☆	8	117	49	58
6,60	5/18-18 UNF	R840- 0660-70-A1A	☆	8	117	49	58
6,70			☆	8	117	49	58
6,75			☆	8	117	49	58
6,80			☆	8	117	49	58
6,90			☆	8	117	49	58
7,00	5/18-24 UNF	R840- 0700-70-A1A	☆	8	117	49	58
7,10			☆	8	117	56	67
7,14			☆	8	117	56	67
7,20			☆	8	117	56	67
7,30			☆	8	117	56	67
7,40	19/64	R840- 0740-70-A1A	☆	8	117	56	67
7,50			☆	8	117	56	67
7,54			☆	8	117	56	67
7,60			☆	8	117	56	67
7,70			☆	8	117	56	67
7,80	5/16	R840- 0780-70-A1A	☆	8	117	56	67
7,90			☆	8	117	56	67
7,94			☆	8	117	56	67
8,00			☆	8	117	56	67
8,10			☆	10	133	62	74
8,20	21/64	R840- 0820-70-A1A	☆	10	133	62	74
8,30			☆	10	133	62	74
8,33			☆	10	133	62	74
8,40			☆	10	133	62	74
8,50			☆	10	133	62	74
8,60	3/8-24 UNF	R840- 0860-70-A1A	☆	10	133	62	74
8,70			☆	10	133	62	74
8,73			☆	10	133	62	74
8,80			☆	10	133	62	74
8,90			☆	10	133	62	74
9,00	23/64	R840- 0900-70-A1A	☆	10	133	70	84
9,10			☆	10	133	70	84
9,13			☆	10	133	70	84
9,20			☆	10	133	70	84
9,30			☆	10	133	70	84

Ordering example: 10 pieces R840-0500-70-A1A 1220

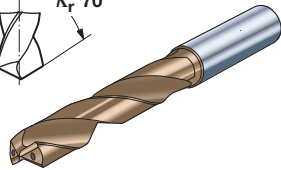
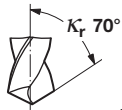


# DRILLING

## CoroDrill™ Delta-C high precision carbide drill

**6 - 7 × D<sub>c</sub>**

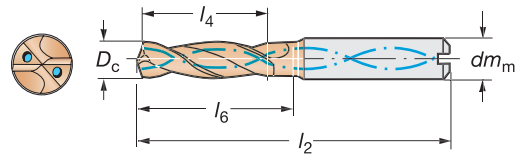
**Cylindrical shank**



**Introduction during autumn 2003.**

**Drill diameter:** 5,00-14,00 mm  
**Max hole depth:** 6-7 × D<sub>c</sub>  
**Coating:** TiN/ TiAlN multilayer  
**Hole tolerance:** IT8-9-10  
**Surface finish:** R<sub>a</sub> 1-2 μm  
**Cutting fluid:** Emulsion or cutting oil  
**Drill standard:** DIN 6537  
**Tolerances:** dm<sub>m</sub> = h6  
 D<sub>c</sub> = m7:  
 D<sub>c</sub> 10≤18 +0,025/+0,007

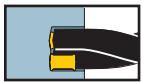
*Internal coolant supply*



*l<sub>4</sub> = recommended drilling depth*

Drill diameter D <sub>c</sub> mm	Fraction/ Thread size	Ordering code Internal coolant supply	Coromant grades 1220	Dimensions, mm			
				dm <sub>m</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
9,40		R840- 0940-70-A1A	☆	10	133	70	84
9,50		0950-70-A1A	☆	10	133	70	84
9,52	3/8	0952-70-A1A	☆	10	133	70	84
9,60		0960-70-A1A	☆	10	133	70	84
9,70		0970-70-A1A	☆	10	133	70	84
9,80		R840- 0980-70-A1A	☆	10	133	70	84
9,90		0990-70-A1A	☆	10	133	70	84
9,92	25/64	0992-70-A1A	☆	10	133	70	84
10,00	7/16-20 UNF	1000-70-A1A	☆	10	133	70	84
10,10		1010-70-A1A	☆	12	151	76	91
10,20		R840- 1020-70-A1A	☆	12	151	76	91
10,30		1030-70-A1A	☆	12	151	76	91
10,32	13/32	1032-70-A1A	☆	12	151	76	91
10,40		1040-70-A1A	☆	12	151	76	91
10,45		1045-70-A1A	☆	12	151	76	91
10,50		R840- 1050-70-A1A	☆	12	151	76	91
10,60		1060-70-A1A	☆	12	151	76	91
10,70		1070-70-A1A	☆	12	151	76	91
10,71	27/64	1071-70-A1A	☆	12	151	76	91
10,80		1080-70-A1A	☆	12	151	76	91
10,90		R840- 1090-70-A1A	☆	12	151	76	91
11,00	1/2-13 UNC	1100-70-A1A	☆	12	151	84	100
11,10		1110-70-A1A	☆	12	151	84	100
11,11	7/16	1111-70-A1A	☆	12	151	84	100
11,20		1120-70-A1A	☆	12	151	84	100
11,30		R840- 1130-70-A1A	☆	12	151	84	100
11,40		1140-70-A1A	☆	12	151	84	100
11,50		1150-70-A1A	☆	12	151	84	100
11,51	29/64	1151-70-A1A	☆	12	151	84	100
11,60	1/2-20 UNF	1160-70-A1A	☆	12	151	84	100
11,70		R840- 1170-70-A1A	☆	12	151	84	100
11,80		1180-70-A1A	☆	12	151	84	100
11,90	15/32	1190-70-A1A	☆	12	151	84	100
12,00		1200-70-A1A	☆	12	151	84	100
12,10		1210-70-A1A	☆	14	160	89	107
12,20		R840- 1220-70-A1A	☆	14	160	89	107
12,30	31/64	1230-70-A1A	☆	14	160	89	107
12,40		1240-70-A1A	☆	14	160	89	107
12,50		1250-70-A1A	☆	14	160	89	107
12,60		1260-70-A1A	☆	14	160	89	107
12,70		R840- 1270-70-A1A	☆	14	160	89	107
12,80		1280-70-A1A	☆	14	160	89	107
13,00		1300-70-A1A	☆	14	160	91	110
13,10	33/64	1310-70-A1A	☆	14	160	91	110
13,25		1325-70-A1A	☆	14	160	91	110
13,50	17/32	R840- 1350-70-A1A	☆	14	160	91	110
13,75		1375-70-A1A	☆	14	160	91	110
13,80		1380-70-A1A	☆	14	160	91	110
13,89	35/64	1389-70-A1A	☆	14	160	91	110
14,00		1400-70-A1A	☆	14	160	91	110

Ordering example: 10 pieces R840-0940-70-A1A 1220



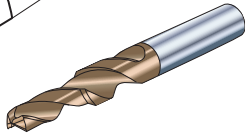
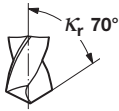
# DRILLING

## High precision carbide drill

$$2 - 3 \times D_c$$

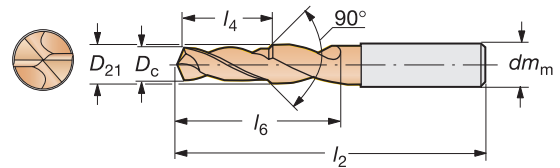
**Chamfer drill for tap-size holes**

**Cylindrical shank**



**Drill diameter:** 3,35—14,50 mm  
**Max hole depth:** 2—3 × D<sub>c</sub>  
**Coating:** TiN/ TiAlN multilayer  
**Hole tolerance:** IT8–9  
**Surface finish:** R<sub>a</sub> 1–2 μm  
**Cutting fluid:** Emulsion or cutting oil  
**Drill standard:** DIN 6537  
**Tolerances:** dm<sub>m</sub> = h6  
 D<sub>c</sub> = m8:  
 D<sub>c</sub> 3≤6 +0,022/+0,004  
 D<sub>c</sub> 6≤10 +0,028/+0,006  
 D<sub>c</sub> 10≤18 +0,034/+0,007

External coolant supply



*l<sub>4</sub>* = recommended drilling depth

Drill diameter D <sub>c</sub> mm	Tap drill size	Ordering code	Coromant grades 1220 P M K N S H	Dimensions, mm				
				dm <sub>m</sub>	D <sub>21</sub>	l <sub>2</sub>	l <sub>4</sub>	l <sub>6</sub>
<b>Normal threads</b>								
3,35	M4	R841- 0335-30-A0A	☆	6,0	4,4	66	11	18
3,40	M4	0340-30-A0A	☆	6,0	4,4	66	11	18
4,25	M5	0425-30-A0A	☆	6,0	5,7	66	14	22
4,30	M5	0430-30-A0A	☆	6,0	5,7	66	14	22
5,00	M6	0500-30-A0A	☆	8,0	6,8	79	17	27
5,10	M6	0510-30-A0A	☆	8,0	6,9	79	17	27
6,85	M8	0685-30-A0A	☆	10,0	9,3	89	21	35
6,90	M8	0690-30-A0A	☆	10,0	9,3	89	21	35
8,60	M10	R841- 0860-30-A0A	☆	12,0	11,2	89	21	38
8,70	M10	0870-30-A0A	☆	12,0	11,7	102	26	43
10,30	M12	1030-30-A0A	☆	14,0	13,1	102	26	45
10,40	M12	1040-30-A0A	☆	14,0	13,7	107	30	50
12,10	M14	1210-30-A0A	☆	16,0	15,5	115	35	58
12,25	M14	1225-30-A0A	☆	16,0	15,7	115	35	58
14,10	M16	1410-30-A0A	☆	18,0	17,5	123	39	65
14,25	M16	1425-30-A0A	☆	18,0	17,5	123	39	65
<b>Fine threads</b>								
7,00	M8 x 1.0	R841- 0700-30-A0A	☆	10,0	9,4	89	21	35
9,00	M10 x 1.0	0900-30-A0A	☆	12,0	11,8	102	26	43
10,50	M12 x 1.5	1050-30-A0A	☆	14,0	13,7	107	30	50
12,50	M14 x 1.5	1250-30-A0A	☆	16,0	15,7	115	35	58
14,50	M16 x 1.5	1450-30-A0A	☆	18,0	17,7	123	39	65

Ordering example: 10 pieces R841-0335-30-A0A 1220

### Save tool space and time in machining centres and transfer lines with the chamfering drill

This solid carbide drill is the most rational solution for production of holes for threading. In one operation the hole is drilled and chamfered.

The drill is available in sizes to suit threads from M4 up to M16 and as Tailor Made, even in a wider range.

It is designed for external supply of cutting fluid and available in grade GC1220 for ISO P, K and N materials.

